Tum in ſecundo quadrante, quia hic Tangentes ſunt negativæ, datur nullus iſtiuſmodi Arcus; in tertio vero quadrante dabitur unus 270° aliquanto minor; porro dabuntur ejuſmodi Arcus in quinto, ſeptimo, &c. Ponatur quarta Peripheriæ pars $= q$, & Arcus quæſiti contineantur in hac forma $(2n+1)q - s$, ita ut ſit $(2n+1)q - s = cot.s = \frac{1}{tang.s}$. Sit $tang.s = x$; erit $s = x - \frac{1}{3}x^3 + \frac{1}{5}x^5 - \frac{1}{7}x^7 +$ &c., ideoque $(2n+1)q = \frac{1}{x} + x - \frac{1}{3}x^3 + \frac{1}{5}x^5 - \frac{1}{7}x^7 +$ &c. Patet autem, ob s Arcum eo minorem, quo major fuerit numerus n, fore x quantitatem valde parvam ideoque proxime $x = \frac{1}{(2n+1)q}$; ſeu $\frac{1}{x} = (2n+1)q$; propius autem invenitur

CAP. XXII.

$$\frac{1}{x} = (2n+1)q - s = (2n+1)q - \frac{1}{(2n+1)q} - \frac{2}{3(2n+1)^3q^3} - \frac{13}{15(2n+1)^5q^5} - \frac{146}{105(2n+1)^7q^7} - \frac{2343}{945(2n+1)^9q^9} - \text{\&c.}$$

Cum ergo ſit $q = \frac{\varpi}{2} = 1{,}5707963267948$, erit Arcus quæſitus $= (2n+1)\,1{,}570796326 79 - \frac{1}{2n+1}\,0{,}63661977 - \frac{0{,}17200817}{(2n+1)^3} - \frac{0{,}09062596}{(2n+1)^5} - \frac{0{,}05892834}{(2n+1)^7} - \frac{0{,}04258543}{(2n+1)^9} -$ &c. Vel ſi iſti termini, qui in partibus Radii exprimuntur, ad menſuram Arcuum reducantur, erit Arcus quæſitus in genere conſideratus $= (2n+1)90° - \frac{131313''}{2n+1} - \frac{35479''}{(2n+1)^3} - \frac{18692''}{(2n+1)^5} - \frac{12155''}{(2n+1)^7} - \frac{8784''}{(2n+1)^9}$. Arcus ergo quæſtioni ſatisfacientes ordine ſunt.